

In the Claims

The below listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims:

1. (Previously Presented) A vertebral implant for interposition between two vertebral endplates comprising:
 - a first endplate assembly for engaging a first vertebral endplate;
 - a second endplate assembly for engaging a second vertebral endplate; and
 - a first flexible core component interposed between the first and second endplate assemblies, the first flexible core component comprising a first end portion and a second end portion,
wherein the first endplate assembly comprises a first circumferential groove for coupling with a complementary first circumferential ridge of the first end portion, and
wherein the coupling of the first end portion to the first endplate assembly to limit restricts lateral translation of the first end portion with respect to the first endplate assembly while permitting pivoting motion between the first end portion and the first endplate assembly and wherein the second end portion is pivotable with respect to the second endplate assembly.
2. (Previously Presented) The vertebral implant of claim 1 wherein the second end portion comprises a second circumferential ridge for coupling with a second circumferential groove of the second endplate assembly and wherein the coupling of the second end portion to the second endplate assembly restricts lateral translation of the second end portion with respect to the second endplate assembly while permitting pivoting motion between the second end portion and the second endplate assembly.
3. (Original) The vertebral implant of claim 1 wherein the first endplate assembly articulates with respect to the second endplate assembly in a direction transverse to a longitudinal axis extending through the first and second vertebral endplates.

4. (Currently Amended) The vertebral implant of claim 1 wherein the first flexible core component comprises a first wear resistant articulating surface and the second endplate assembly comprises a smooth articulating surface.

5-6. (Cancelled)

7. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface and the smooth articulating surfaces are flat.

8. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface comprises an ultra-high molecular weight polyethylene (UHMWPE).

9. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface comprises a cobalt-chrome alloy.

10. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface comprises cross-linked UHMWPE.

11. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface comprises polyetheretherketone (PEEK).

12. (Original) The vertebral implant of claim 4 wherein the first wear resistant articulating surface comprises polyurethane treated with a metal ion implantation.

13. (Original) The vertebral implant of claim 1 wherein the first flexible core component comprises a second wear resistant articulating surface and the second endplate comprises a smooth articulating surface.

14. (Cancelled)

15. (Original) The vertebral implant of claim 1 wherein the first flexible core component comprises polyurethane.

16. (Original) The vertebral implant of claim 1 wherein the first flexible core component comprises silicone.

17. (Original) The vertebral implant of claim 1 wherein the first flexible core component comprises a hydrogel.

18. (Original) The vertebral implant of claim 1 wherein the first flexible core component comprises copolymers of silicone and polyurethane.

19-57. (Cancelled)

58. (Previously Presented) A vertebral implant for interposition between two vertebral endplates, the vertebral implant comprising:

a first endplate assembly comprising a first vertebral endplate contact surface and a first interior surface;

a second endplate assembly comprising a second vertebral endplate contact surface and a second interior surface;

a flexible core component interposed between the first and second interior surfaces, the flexible core component comprising a first end portion and a second end portion,

wherein the first end portion comprises a circumferential ridge for coupling to a circumferential groove of the first interior surface to prevent translation of the first end portion with respect to the first endplate assembly, and

wherein the second end portion is pivotable with respect to the second endplate assembly.

59. (Original) The vertebral implant of claim 58 wherein the first end portion is affixed to the first endplate assembly to prevent rotation between the first end portion and the first endplate assembly.

60. (Original) The vertebral implant of claim 58 wherein the first end portion is harder than a flexible portion of the flexible core component.

61. (Original) The vertebral implant of claim 58 wherein an articulating portion of the flexible core component is harder than the first end portion.

62. (Previously Presented) A hybrid vertebral implant comprising:
first and second opposing endplate assemblies, each endplate assembly comprising an engagement surface having a circumferential undercut groove; and
an elastically deformable core component comprising opposite end surfaces each having a circumferential ridge configured to engage the respective circumferential undercut grooves,
wherein each engagement surface prevents linear displacement of the respective end surface while permitting rotational motion between the respective engagement and end surfaces.

63. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the end surfaces comprise a wear resistant material.

64. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the opposite end surfaces are flat.

65. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the elastically deformable core component comprises a portion having a lower modulus of elasticity than the opposite end surfaces.

66. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the elastically deformable core comprises a polyolefin rubber.

67. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the elastically deformable core component comprises polyurethane.

68. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the elastically deformable core component comprises silicone.

69. (Previously Presented) The hybrid vertebral implant of claim 62 wherein the elastically deformable core component comprises a hydrogel.